

R E M A R K S

In the Office Action, objection was made to the specification as failing to support certain language of the claims, and claims 1-15 were rejected under 35 USC 112, first and second paragraphs, as misstating the construction of the invention and being unclear with respect to passages quoted from claim 1, as set forth in the Office Action. Also, claim 16 was rejected as being unpatentable under 35 USC 103 in view of the combination of teachings of Pasco (US 4,323,951), Ogura et al (US 5,915,822) and Abileah et al (US 5,629,784) for reasons set forth in the Office Action.

The position of the Examiner, with respect to the objection to the specification and the rejections of claim 1 (and dependent claims 2-15) under 35 USC 112, is not understood. The position of the Examiner appears to be based on quoted passages of claim 1, presented in Point 3 of the Office Action. A first of the quoted passages appears in the last two lines of Page 2 of the Office Action. The first quoted passage comes from lines 8-10 of claim 1, and correctly sets forth a feature of the invention.

A second of the quoted passages appears in the first two lines of Page 3 of the Office Action, but is not found anywhere in claim 1. It appears that the Examiner is attempting to set forth a feature disclosed in the last two lines of claim 1, which state that the polarizing filter is arranged in the same plane as the film at the front surface of the dial plate.

The recitals of both of these features in claim 1 are consistent with the teachings in the specification and the drawing.

The first feature is that the front surface of the display is coplanar with the front surface of the dial plate. This is shown in Fig. 2 wherein the front surface of display element 8 (panel, middle of page 5 of specification) is coplanar with the front surface of dial plate element 7 (optical waveguide, middle of page 5 of specification).

The second feature is that the polarizing filter 10 (a film) is coplanar with the dial (a film 6 with markings of a scale thereon, page 5 at lines 10-15). In Fig. 2, the polarization filter 10 (page 5 at lines 21-23) and the film 6 are shown to be coplanar. Claim 6 states further (lines 6-7) that the polarization filter is on the front surface of the display, and that there is a film (lines 13-14) applied to the front surface of the dial plate. The recital of the positions of the polarization filter and the dial-plate film is consistent with the statement that they are coplanar.

In the matter of the rejection of claim 16 (Point 7 of the Office Action), the Examiner makes reference to a diffuser (last paragraph of page 4) which the Examiner considers to be much like a light proof channel, and is disposed between a front polarizer and a liquid crystal screen. The last paragraph of claim 16 addresses an empty space located behind the polarizer. Claim 16 does not disclose a diffuser. It is urged that a diffuser is not the equivalent of empty space. Unlike empty space, a diffuser redirects rays of light to give a diffuse pattern of light.

An interview was conducted between applicants' attorney and the Examiner on March 25, 2002 to clarify the position of the Examiner. The assistance of the Examiner is highly appreciated.

In the matter of the rejection under 35 USC 112, the Examiner noted in the interview that the present wording of claim 1 is ambiguous with respect to the location of the plane of the front surface of the display and of the dial. The wording raises the question of whether the location is determined in the presence or the absence of the film, namely, the dial marking film in front of the dial plate and the polarizing film in front of the display.

Claim 1 has been amended to resolve the ambiguity by introducing further elements of the construction of the display and the dial. Claim 1 now recites a dial assembly having a dial plate with a film having dial markings disposed on the dial plate. Claim 1 further recites a display having a liquid crystal screen with a front polarizing filter disposed in front of the liquid crystal screen. In claim 1 there is contact between the front surfaces of the screen and the dial plate. In claim 11, which has been rewritten in independent form, the foregoing recital of contact between the front surface of screen and dial has been deleted to allow for the construction of Fig. 6 in which the screen is recessed to attain the empty space behind the polarizing filter. This is believed to overcome the rejections based on 35 USC 112, first and second paragraphs, and conforms the claims to the specification.

In the matter of the rejection of claim 16 under 35 USC 103, the Examiner indicated in the interview that, in the absence of further detail in claim 16, the operation of a diffuser would be comparable to the operation of the empty space, in so far as consideration of a function of reducing the effect of stray light from the dial in leaking into the display.

To overcome the rejection of claim 16, the claim has been amended to include the frame 19 (shown in Fig. 6 and described in the specification in the paragraph linking pages 6-7) which is understood to be impervious to light propagating from the right and left sides of the display into the display. This construction produces the light proof channel which maintains successful operation of the display even in the presence of stray light emitted by regions of the dial surrounding the display. This is believed to overcome the rejections under 35 USC 103. In addition, the following observations on the teachings of the combined references are believed to show further the presence of allowable subject matter.

Relating to claim 16, Pasco (US 4,323,951) was cited to show a display unit having a dial plate and a display located in a region of the dial plate. The front surface of the display, which faces a observer, is arranged in the same plane as a front surface of the dial plate, which faces the observer, the front surface of the display contacting the front surface of the dial to form therewith a continuous surface.

Since the display is not a liquid crystal screen, there are no indications of further features of claim 16.

Ogura et al (US 5,915,822) teaches a display unit having a dial plate and a display located in a region of the dial plate, the display having a front surface, and the display comprising a liquid crystal screen.

No further aspects of claim 16 are known from Ogura et al. Especially a polarizing filter is not known from Ogura et al. Not every kind of liquid crystal display has polarizing filters,

but only twisted nematic liquid crystal displays have polarizing filters.

Since there is no polarizing filter, such a filter cannot be spaced apart from the liquid crystal screen to form therewith an empty space.

The front surface of the display, which faces an observer, is arranged in another plane different from the front surface of the front of the dial plate 13.

Abileah et al (US 5,629,784) teaches a liquid crystal display having on its observer side a polarizing filter 15, but that filter 15 not spaced apart from the liquid crystal screen to form therewith an empty space which empty space serves as a light proof channel.

Since none of the above-mentioned references shows a space between a liquid crystal screen and a front polarizer serving as a light channel, therefore, also a combination of the teachings of the cited references cannot show or suggest a display unit according claim 16. So claim 16 should be patentable.

Claim 3 has been cancelled without prejudice in view of the inclusion of its subject matter into amended claim 1.


Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Version with markings to show changes made"

In the event there are further issues remaining the Examiner is respectfully requested to telephone attorney to reach agreement to expedite issuance of this application.

Since the present claims set forth the present invention patentably and distinctly, and are not taught by the cited art either taken alone or in combination, this amendment is believed to place this case in condition for allowance and the Examiner is respectfully requested to reconsider the matter, enter this amendment, and to allow all of the claims in this case.


Respectfully submitted,

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the accompanying Amendment Upon Final Rejection is being facsimile transmitted to the Patent & Trademark Office on March 26, 2002.


Signed by Martin A. Farber

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USA Patent Application
Peter Brandt, et al
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DISPLAY UNIT
Examiner: Dung Nguyen
Group art unit: 2871

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

1. (five times amended) A display unit,
suitable for a vehicle, comprising:

a dial [plate] assembly and a display
located in a region of the dial [plate] assembly, [the display
having a front surface,] the display comprising a liquid crystal
screen with a front polarizing filter[, the polarizing filter
being] located on [the] a front surface of the [display] liquid
crystal screen facing an observer, the dial assembly comprising a
dial plate and a film with dial markings located on a front
surface of the dial plate facing the observer, wherein

the front surface of the [display, which
faces an observer,] liquid crystal screen is arranged in the same
plane as [a] the front surface [of the front] of the dial plate,
[which faces the observer,] the front surface of the [display]
liquid crystal screen contacting the front surface of the dial
plate to form therewith a continuous surface; and

[the display unit further comprises a
film applied to the front surface of the dial plate, and wherein]
the polarizing filter of the display is arranged in the same

plane as the film [at the front surface] of the dial [plate] assembly.

2. (three times amended) The display unit as claimed in claim 1, wherein the liquid crystal screen of the display comprises a front panel arranged in a cutout in the dial plate.

6. (three times amended) The display unit as claimed in claim 1, wherein the [display] liquid crystal screen comprises a rear panel which is bonded to the back of the dial plate.

11. (six times amended) [The display unit as claimed in claim 1,] A display unit, suitable for a vehicle, comprising:

a dial assembly and a display located in a region of the dial assembly, the display comprising a liquid crystal screen with a front polarizing filter located in front of a front surface of the liquid crystal screen facing an observer, the dial assembly comprising a dial plate and a film with dial markings located on a front surface of the dial plate facing the observer, wherein the polarizing filter of the display is arranged in the same plane as the film of the dial assembly, and

wherein, [in the contacting of the front surface of the display with the front surface of the dial,] the front polarizing filter of the liquid crystal screen connects to

the dial plate film so as to form a single component, and there is an empty space behind the front polarizing filter.

16. (twice amended) A display unit, suitable for a vehicle, comprising:

a dial plate, a frame and a display, the display being located in a region of the dial plate[, the display] and having a front surface, the display comprising a liquid crystal screen with a front polarizing filter, the polarizing filter being on the front surface of the display, the dial plate having a film thereon and constituting with the film a dial assembly, wherein

the front surface of the display, which faces an observer, is arranged in the same plane as a front surface of the [front of the] dial [plate] assembly, which faces the observer, the front surface of the display contacting the front surface of the dial assembly to form therewith a continuous surface; and

wherein, in the contacting of the front surface of the display with the front surface of the dial assembly, the front polarizing filter of the liquid crystal screen is spaced apart from the liquid crystal screen to form therewith and with the frame an empty space behind the front polarizing filter, said empty space serving with the frame as a light proof channel for light incident from a side of the display to facilitate a reading of the display unit.